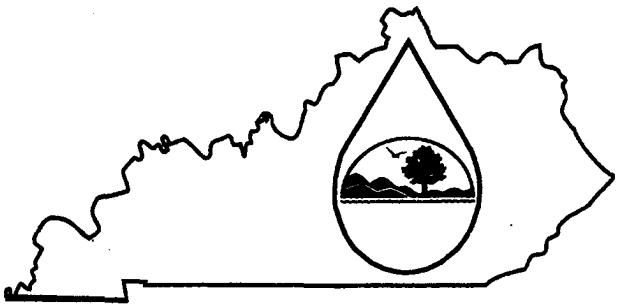
KPDES FORM 1



KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

2004 JUL 12 P 3:22

PERMIT APPLICATION

DIVISION OF WATER

This is an application to: (check one)

- ☐ Apply for a new permit.
- ☒ Apply for reissuance of expiring permit.
- ☐ Apply for a construction permit.
- ☐ Modify an existing permit.
  Give reason for modification under Item II.A.

A complete application consists of this form and one of the following:
Form A, Form B, Form C, Form F, or Short Form C

For additional information contact:
KPDES Branch (502) 564-3410

NO $ needed

I. FACILITY LOCATION AND CONTACT INFORMATION	AGENCY USE	0	0	3	3	8	4	7

A. Name of business, municipality, company, etc. requesting permit
City of Monticello

B. Facility Name and Location	C. Facility Owner/Mailing Address
Facility Location Name: Monticello Wastewater Treatment Plant	Owner Name: Monticello Utility Commission
Facility Location Address (i.e. street, road, etc.): Twin Oaks Rd. (Formerly Sewer Plant Rd)	Mailing Street: P.O. Box 549
Facility Location City, State, Zip Code: Monticello, KY 42633 (606) 348-8230	Mailing City, State, Zip Code: Monticello, KY 42633
	Telephone Number: (606) 348-8473

II. FACILITY DESCRIPTION

A. Provide a brief description of activities, products, etc:

Municipal Wastewater Plant

B. Standard Industrial Classification (SIC) Code and Description

Principal SIC Code & Description:	9199		
Other SIC Codes:			

III. FACILITY LOCATION

A. Attach a U.S. Geological Survey 7 ½ minute quadrangle map for the site. (See instructions)

B. County where facility is located:	City where facility is located (if applicable):
Wayne	Monticello

C. Body of water receiving discharge:
Elk Creek

D. Facility Site Latitude (degrees, minutes, seconds):	Facility Site Longitude (degrees, minutes, seconds):
36 degrees/48 minutes/55 seconds	84 degrees/52 minutes/45 seconds

E. Method used to obtain latitude & longitude (see instructions): Topo Map

F. Facility Dun and Bradstreet Number (DUNS #) (if applicable): N/A

IV. OWNER/OPERATOR INFORMATION

A. Type of Ownership:
☒ Publicly Owned ☐ Privately Owned ☐ State Owned ☐ Both Public and Private Owned ☐ Federally owned

B. Operator Contact Information (See instructions)

Name of Treatment Plant Operator:	Telephone Number:
David L. Edwards	(606) 348-8230
Operator Mailing Address (Street): Rt. 8 Box 5305	
Operator Mailing Address (City, State, Zip Code): Monticello, KY 42633	
Is the operator also the owner? Yes ☐ No ☒	Is the operator certified? If yes, list certification class and number below. Yes ☒ No ☐
Certification Class: Class 11	Certification Number: 5571

V. EXISTING ENVIRONMENTAL PERMITS

Current NPDES Number:	Issue Date of Current Permit:	Expiration Date of Current Permit:
KY 0033847	8-1-2000	11-30-04
Number of Times Permit Reissued:	Date of Original Permit Issuance:	Sludge Disposal Permit Number: #116-00010
Kentucky DOW Operational Permit #:	Kentucky DSMRE Permit Number(s):	

C. Which of the following additional environmental permit/registration categories will also apply to this facility?

CATEGORY	EXISTING PERMIT WITH NO.	PERMIT NEEDED WITH PLANNED APPLICATION DATE
Air Emission Source		
Solid or Special Waste	#116-00010	
Hazardous Waste - Registration or Permit		

VI. DISCHARGE MONITORING REPORTS (DMRs)

KPDES permit holders are required to submit DMRs to the Division of Water on a regular schedule (as defined by the KPDES permit). The information in this section serves to specifically identify the department, office or individual you designate as responsible for submitting DMR forms to the Division of Water.

A. Name of department, office or official submitting DMRs:	Leroy Mikel
B. Address where DMR forms are to be sent. (Complete only if address is different from mailing address in Section I.)	
DMR Mailing Name:	Monticello Utility Commission
DMR Mailing Street:	P.O. Box 549 1100 N. Main St.
DMR Mailing City, State, Zip Code:	Monticello, KY 42633
DMR Official Telephone Number:	(606) 348-8473

VII. APPLICATION FILING FEE

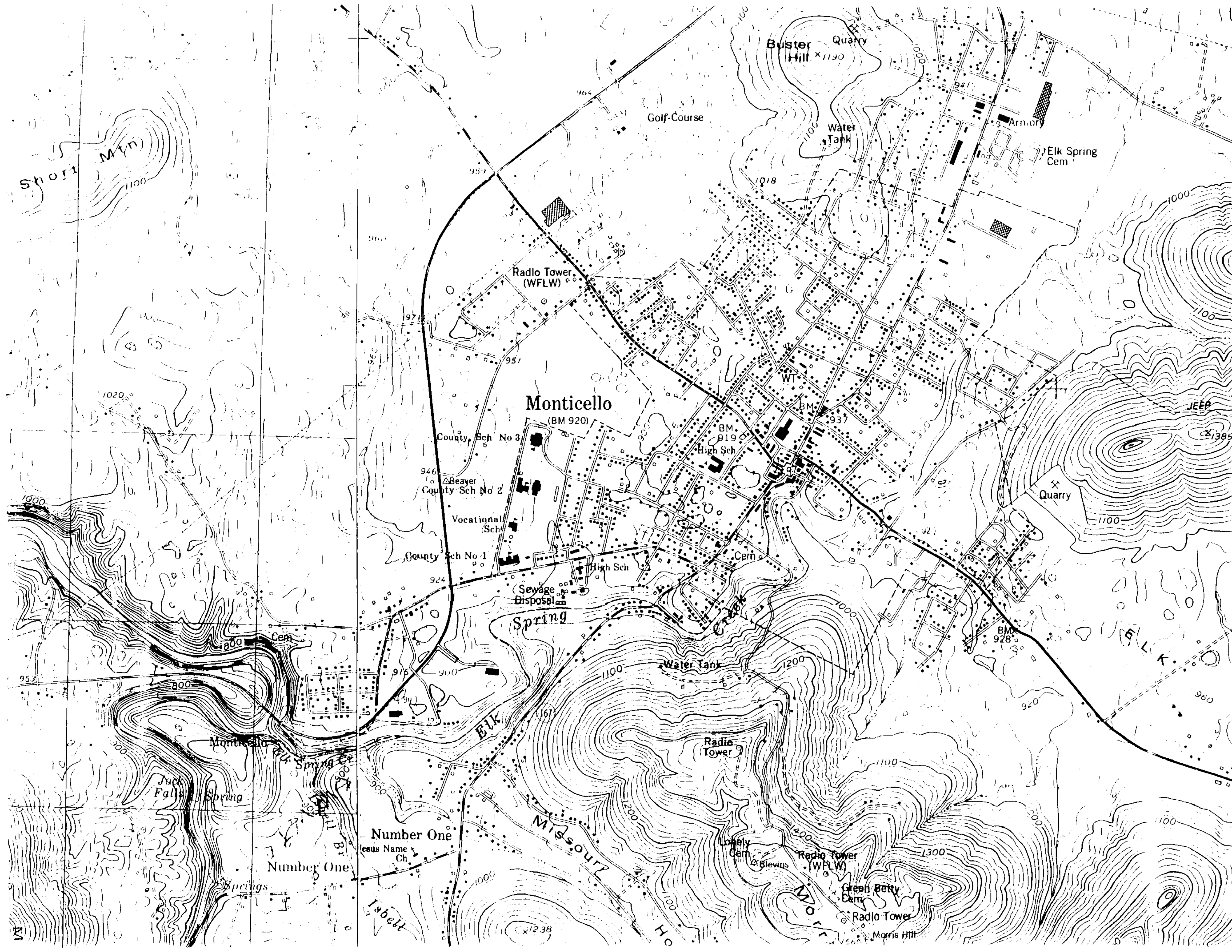
KPDES regulations require that a permit applicant pay an application filing fee equal to twenty percent of the permit base fee. Please examine the base and filing fees listed below and in the Form 1 instructions and enclose a check payable to "Kentucky State Treasurer" for the appropriate amount. Descriptions of the base fee amounts are given in the "General Instructions."

Facility Fee Category:	Filing Fee Enclosed:

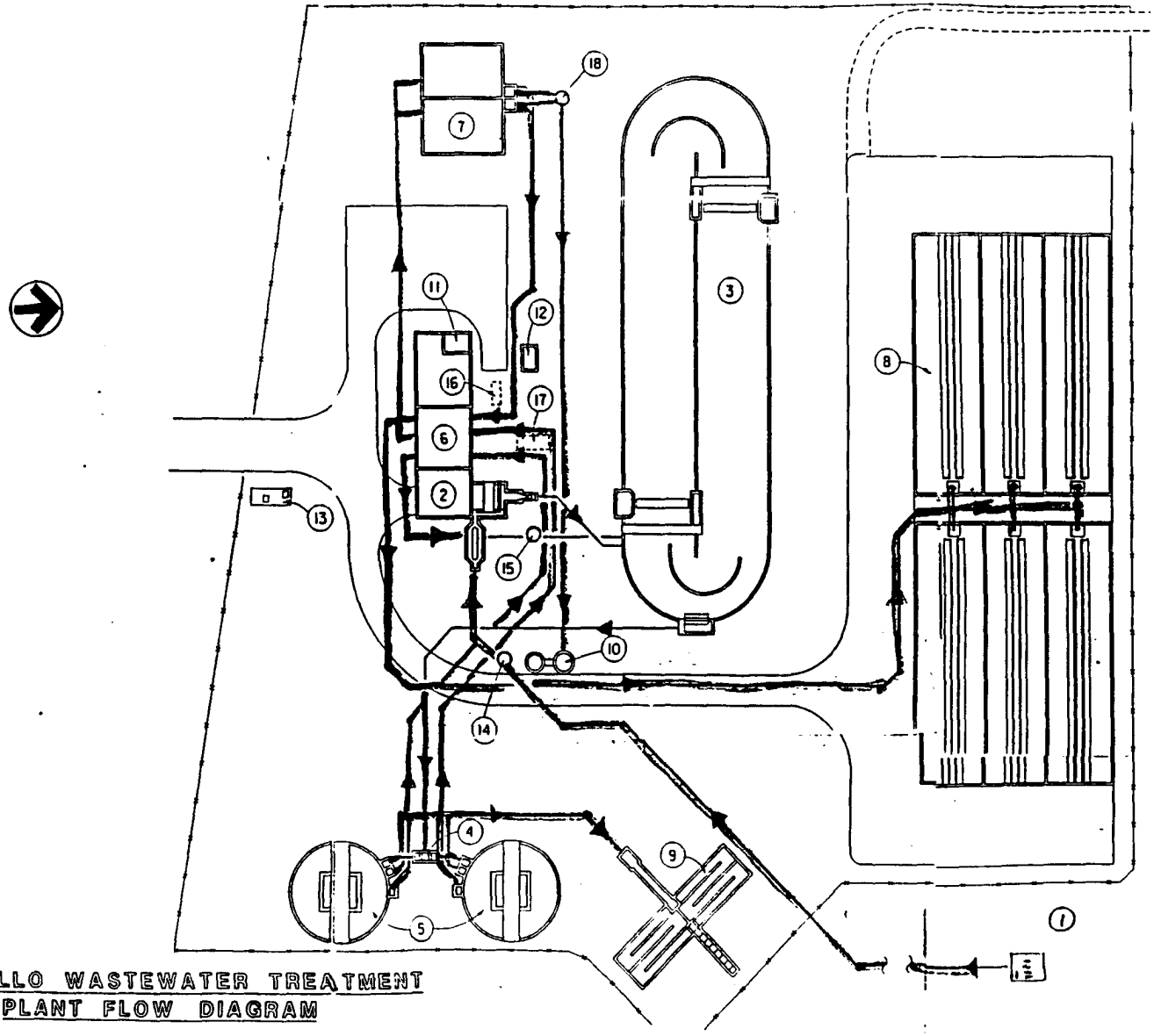
VIII. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME AND OFFICIAL TITLE (type or print):	TELEPHONE NUMBER (area code and number):
Leroy Mikel Manager	606-348-8473
SIGNATURE: Leroy Mikel	DATE: 7-9-04



Short Mtn
Golf Course
Buster Hill
Quarry
Water Tank
Armory
Elk Spring Cem
Radio Tower (WFLW)
Monticello
(BM 920)
County Sch No 3
Beaver
County Sch No 2
Vocational Sch
County Sch No 1
High Sch
Sewage Disposal
Spring
Creek
Cem
WT
BM
937
High Sch
Quarry
JEEP
BM
928
ELK
Water Tank
Radio Tower
Elk
Missouri
Lonely Cem
Blevins
Radio Tower (WFLW)
Green Betty Cem
Radio Tower
Morris Hill
Number One
Jesus Name Ch
Number One
Springs
Isbell
Monticello
Elk Spring Cr
Jack Falls Spring



1. RAW SEWAGE PUMPING STATION
2. PRETREATMENT FACILITIES
3. OXIDATION DITCH
4. FLOW SPLITTER
5. CLARIFIERS
6. ADMINISTRATION BUILDING (SLUDGE PUMPING STATION/ BLOWER ROOM)
7. SLUDGE HOLDING TANK
8. SLUDGE DRYING BEDS
9. DISINFECTION FACILITIES
10. PLANT SEWER PUMPING STATION
11. LIME FEED ROOM
12. CHLORINE BUILDING
13. WATER METER & BACKFLOW PREVENTER
14. PRE-CHLORINE BOX
15. POST-CHLORINE BOX
16. DIESEL STORAGE
17. STANDBY POWER
18. MANHOLE "E"

MONTICELLO WASTEWATER TREATMENT PLANT FLOW DIAGRAM

GRW Engineers, Inc.
LEXINGTON, BOWLING GREEN AND LOUISVILLE, KENTUCKY
NASHVILLE, TENNESSEE

EnviroData Group
Accredited Lab Data for Today's Environment

2520 Regency Road
Lexington, KY 40503-2921
Phone: 859-276-3506
Toll Free: 800-489-3506
Fax: 859-278-5665
Email: info@envirodatagroup.com
www.envirodatagroup.com

May 24, 2004

Mr. Leroy Mikel
Monticello Utility Commission
P.O. Box 549
Monticello, KY 42633

RE: Biomonitoring Results
Bio. Log No.: 311815, 312496, 313194

Dear Mr. Mikel:

Enclosed are copies of the data sheets for the most recent biomonitoring tests for the Monticello Wastewater Treatment Plant. A summary of the findings is presented below.

Test Type	*Pimephales promelas*
Sample Collection Dates	May 3 - 7 , 2004
Test Concentrations	18, 36, 71, 85, 100%
Permit Limit	1.4
IC_{25}	> 100%
Chronic Toxicity Units ($TU_c = 100/IC_{25}$)	< 1.0
Result	Non-Toxic .

If you have any questions or comments concerning the enclosed report, please feel free to contact me.

Sincerely,
Sharon Hamilton
Biology Section Manager

Enclosures
62montic.doc

Test Type: Chronic Definitive

KENTUCKY TOXICITY TEST REPORT SHEET
SAMPLE NUMBERS: 311815, 312496, 313194

1) **Facility/Discharger:** Monticello Wastewater Treatment Plant **Report Date:** May 24, 2004

2) **Address:** Highway 90 Monticello, KY 42633 Wayne County

3) **KPDES Permit #:** KY0033847

4) **Receiving Stream:** Elk Lick Creek

5) **Facility Contact:** Mr. Leroy Mikel **Phone #:** (606) 348-8230

6) **Testing Lab Name:** EnviroData Group, LLC

7) **Lab Contact:** Ms. Lisa Martin **Phone #:** (859) 276-3506

8) **Outfall(s) Tested:** 001

9) **Average daily flow (MGD):** Not recorded on chain of custody record.

10) **Test Species:** *Pimephales promelas*

11) **Species Age:** < 24 hours

12) **Organism Source:** In-house culture

13) **Acclimation Procedure:** N/A

14) **Test Conditions: (Static, Static-Renewal):** Static-Renewal

15) **Dilution Water Type (synthetic, receiving stream):** Synthetic

16) **Aeration? (Before/During Test):** None

17) **Dechlorination?:** No **Original Chlorine Level:** < 0.02 mg/L

18) **Reference Toxicant Test Results:**

Species	Date	Time	Duration	Toxicant	Results (IC_{25})
Pimephales promelas	05/12/04	15:00	7 days	NaCl	3854 mg/L

SAMPLING SUMMARY
MONTICELLO WASTEWATER TREATMENT PLANT

Outfall	Type Grab/Composite	Volume Collected	Sample Collection		Sample Temp. (°C)	Rain Fall (inches)
			Begin	End		
001	Composite	2 gallons	05/02/04 8:00 AM	05/03/04 8:00 AM	1.0	NR[1]
		2 gallons	05/04/04 8:00 AM	05/05/04 8:00 AM	3.0	NR
		2 gallons	05/06/04 8:00 AM	05/07/04 8:00 AM	1.0	NR

[1] NR - Not Recorded on Chain of Custody Record.

Dates / Times of Test Performance: 05/04/04 14:00 – 05/11/04 15:00

TOXICITY TEST RESULTS FOR MONTICELLO WWTP
PIMEPHALES PROMELAS SURVIVAL AND GROWTH DEFINITIVE TEST
CONDUCTED 05/04/04 – 05/11/04 USING EFFLUENT
FROM OUTFALL # 001

Test Solution	Daily Percent Survival							Weight (mg)	
	1	2	3	4	5	6	7	Total	Mean
Control	100	100	100	100	100	100	98	18.61	0.465
18% Effluent	100	100	100	100	100	100	100	20.53	0.513
36% Effluent	100	100	100	100	100	100	100	22.13	0.553
71% Effluent	100	100	100	100	100	100	100	21.72	0.543
85% Effluent	100	100	100	100	100	100	100	19.87	0.497
100% Effluent	100	100	100	100	100	100	100	20.63	0.516

IC_{25} > 100% 95% Confidence Limits UL = N/A LL = N/A UL – Upper Limit LL – Lower Limit	TU_c < 1.0 Permit Limit TU_c = 1.40

[1]NOTE: $TU_c = 100/IC_{25}$

ADDITIONAL TOXICITY TEST INFORMATION

1) Submit copies of all bench sheets and statistical calculations/printouts obtained during the test(s). Data must be presented in tabular form and must include all physical and/or chemical measurements recorded during the test (e.g. temperature, conductivity, total residual chlorine, dissolved oxygen, etc.). **See appendix.**

2) Methods/Instrumentation used in chemical analysis:

Dissolved Oxygen: EPA method 360.1 Using a Thermo Orion Model 850 A+

pH: EPA method 150.1 Using a Fisher Scientific Accumet Model AB15

Conductivity: EPA method 120.1 Using a Fisher Scientific Accumet Model AB30

Alkalinity: EPA Titrimetric Method 310.1 or EPA Colorimetric Method 310.2 Using a Lachat Autoanalyzer

Hardness: EPA Method 200.7/9.3 Using an Accuris ICP Analyzer

Chlorine: EPA method 330.4 DPD Ferrous Titrimetric Method

EPA Chronic Manual Edition and Date: EPA 821-R-02-013 October 2002

3) Indicate below any other relevant information that may aid in the evaluation of this report. Include any deviations from EPA methodology that were necessary for these tests as well as any sample manipulations which were performed, such as aeration, dechlorination with sodium thiosulfate, etc. and the justification for such manipulations or deviations. Attach additional pages as needed. **None performed.**

SHARON Hami Ha — 5/24/04

Signature of person filling out form — Date

Sharon Hamilton — Biology Section Manager

Name — Title

EnviroData Group
Accredited Lab Data for Today's Environment

2520 Regency Rd.
Lexington, KY 40503
Phone: 859-276-3506
Toll Free: 800-489-3506
Fax: 859-278-5665
E-mail: info@envirodatagroup.com

Analytical Results

Monticello Utilities Commission
Attn: Mr. David Edwards
PO Box 549
Monticello, KY 42633

cc: PDF to mwwtp@net-power.net

Project Name: Bio
Project Number:
Chain of Custody: 29434

Date Received: 5/3/2004 Collector: Client Temperature Received: 1
Project Manager: Becky Bryant

	Result	Units	Client Limit	RL	Qualifiers	Analyzed/Analyst	Extracted
Laboratory Sample #: 311815 Client Sample ID: Effluent						Composite End Date: 05/03/2004 08:00	
						Composite Start: 5/2/2004 08:00	
Client Sample #:							
Chlorine, Total Residual			**Method: EPA330.4**			**Prep. Method: N/A**	
Chlorine, Total Residual	**< 0.020**	mg/L	N/A	0.020		Analyzed: 05/03/2004 / JAB	
Chronic Toxicity			**Method: EPA821-R-02-013/1000.0**			**Prep. Method: N/A**	
Please See Attached							
Total Hardness			**Method: SM 2340B**			**Prep. Method: CALC**	
Hardness, Total	**118**	mg/L CaCO3	N/A	1.25	TQ	Analyzed: 05/05/2004 16:19/	
Alkalinity, Total			**Method: EPA 310.2**			**Prep. Method: N/A**	
Alkalinity, Total	**102**	mg/L CaCO3	N/A	30		Analyzed: 05/05/2004 23:01/ VSM	

All samples were received intact and properly preserved unless otherwise noted.
The results reported relate only to the samples tested.
This report shall not be reproduced except in full, without written approval of this laboratory.

ACCREDITED IN ACCORDANCE WITH nelac
Lab# E87286

A2LA ACCREDITED
Lab#: 100343

Submitted by:
Project Manager: Becky Bryant

Please contact Becky Bryant with any questions.

Specific tests covered by A2LA and NELAC accreditations meet the requirements of these accreditation standards.

Results reported on a Wet Weight Basis

Printed: 05/11/2004

Data Qualifiers

Qualifier	Description
A	E. coli Present.
A'	E. coli absent.
B	Analyte detected in associated Method Blank.
C	Sample Result confirmed.
D	Results reported from dilution.
E	Analyte concentration exceeds calibration range.
F	Unable to analyze due to sample matrix interference.
H	Sample was received or analyzed past the established holding time.
J	Estimated concentration.
K	Sample contained lighter hydrocarbon fractions.
L	Sample contained heavier hydrocarbon fractions.
M	Matrix Spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Presumptive evidence of analyte present.
O	Sample hydrocarbon pattern does not match calibration standard pattern.
P	Percent difference between primary and secondary column concentrations exceeds acceptance limit.
Q	Laboratory Control Sample outside acceptance limits.
R	Data unusable.
S	Surrogate outside acceptance limits on initial and reanalysis.
S'	Surrogates diluted below detection.
T	Sample received improperly preserved.
U	Analyte not detected.
W	Raised Quantitation or Reporting Limit due to limited sample volume.
Y	Replicate/Duplicate precision outside acceptance limits.
Z'	Calibration criteria exceeded but for this situation acceptable by method.
Z	Calibration criteria exceeded.
M'	Result from Method of Standard Additions (MSA).
Q'	LCS/LCD analyzed due to insufficient sample for MS/MSD.

The uncertainty of analytical results can be calculated using the following equation:

$$n = t^*s/1.414$$

where

t=12.706 (Students t value for 95% confidence interval of two replicates)
s= standard deviation of sample and duplicate data
1.414 is square root of the number of replicates (two)

EnviroData Group
Accredited Lab Data for Today's Environment

2520 Regency Rd.
Lexington, KY 40503
Phone: 859-276-3506
Toll Free: 800-489-3506
Fax: 859-278-5665
E-mail: info@envirodatagroup.com

Analytical Results

Monticello Utilities Commission
Attn: Mr. David Edwards
PO Box 549
Monticello, KY 42633

Project Name: Bio
Project Number:
Chain of Custody: 29515

cc: PDF to mwwtp@net-power.net

Date Received: 5/5/2004 Collector: Client Temperature Received: 3
Project Manager: Becky Bryant

	Result	Units	Client Limit	RL	Qualifiers	Analyzed/Analyst	Extracted
Laboratory Sample #: 312496 Client Sample ID: Effluent						Composite End Date: 05/05/2004 08:00	
						Composite Start: 5/4/2004 08:00	
Client Sample #:							
Chlorine, Total Residual			**Method: EPA330.4**			**Prep. Method: N/A**	
Chlorine, Total Residual	**< 0.020**	mg/L	N/A	0.020		Analyzed: 05/05/2004 / JAB	
Chronic Toxicity			**Method: EPA821-R-02-013/1000.0**			**Prep. Method: N/A**	
Please See Attached							
Total Hardness			**Method: SM 2340B**			**Prep. Method: CALC**	
Hardness, Total	**118**	mg/L CaCO3	N/A	1.25	TM	Analyzed: 05/11/2004 12:16/	
Alkalinity, Total			**Method: EPA 310.2**			**Prep. Method: N/A**	
Alkalinity, Total	**83**	mg/L CaCO3	N/A	30		Analyzed: 05/05/2004 23:12/ VSM	

All samples were received intact and properly preserved unless otherwise noted.
The results reported relate only to the samples tested.
This report shall not be reproduced except in full, without written approval of this laboratory.

ACCREDITED IN ACCORDANCE WITH NELAC
Lab# E87286

A2LA ACCREDITED
Lab#: 100343

Submitted by:

Project Manager: Becky Bryant

Please contact Becky Bryant with any questions.

Specific tests covered by A2LA and NELAC accreditations meet the requirements of these accreditation standards.

Results reported on a Wet Weight Basis

Printed: 05/17/2004

	Result	Units	Client Limit	RL	Qualifier	Analyzed/Analyst	Extracted

Data Qualifiers

Qualifier	Description
A	E. coli Present.
A'	E. coli absent.
B	Analyte detected in associated Method Blank.
C	Sample Result confirmed.
D	Results reported from dilution.
E	Analyte concentration exceeds calibration range.
F	Unable to analyze due to sample matrix interference.
H	Sample was received or analyzed past the established holding time.
J	Estimated concentration.
K	Sample contained lighter hydrocarbon fractions.
L	Sample contained heavier hydrocarbon fractions.
M	Matrix Spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Presumptive evidence of analyte present.
O	Sample hydrocarbon pattern does not match calibration standard pattern.
P	Percent difference between primary and secondary column concentrations exceeds acceptance limit.
Q	Laboratory Control Sample outside acceptance limits.
R	Data unusable.
S	Surrogate outside acceptance limits on initial and reanalysis.
S'	Surrogates diluted below detection.
T	Sample received improperly preserved.
U	Analyte not detected.
W	Raised Quantitation or Reporting Limit due to limited sample volume.
Y	Replicate/Duplicate precision outside acceptance limits.
Z'	Calibration criteria exceeded but for this situation acceptable by method.
Z	Calibration criteria exceeded.
M'	Result from Method of Standard Additions (MSA).
Q'	LCS/LCD analyzed due to insufficient sample for MS/MSD.

The uncertainty of analytical results can be calculated using the following equation:

$$n = t^*s/1.414$$

where

t=12.706 (Students t value for 95% confidence interval of two replicates)
s= standard deviation of sample and duplicate data
1.414 is square root of the number of replicates (two)

EnviroData Group
Accredited Lab Data for Today's Environment

2520 Regency Rd.
Lexington, KY 40503
Phone: 859-276-3506
Toll Free: 800-489-3506
Fax: 859-278-5665
E-mail: info@envirodatagroup.com

Analytical Results

Monticello Utilities Commission
Attn: Mr. David Edwards
PO Box 549
Monticello, KY 42633

cc: PDF to mwwtp@net-power.net

Project Name: Bio
Project Number:
Chain of Custody: 29597

Date Received: 5/7/2004 Collector: Client Temperature Received: 1

Project Manager: Becky Bryant

	Result	Units	Client Limit	RL	Qualifiers	Analyzed/Analyst	Extracted
Laboratory Sample #: 313194 Client Sample ID: Effluent						Composite End Date: 05/07/2004 08:00	
						Composite Start: 5/6/2004 08:00	
Client Sample #:							
Chlorine, Total Residual			**Method: EPA330.4**			**Prep. Method: N/A**	
Chlorine, Total Residual	**< 0.020**	mg/L	N/A	0.020		Analyzed: 05/07/2004 / JAB	
Chronic Toxicity			**Method: EPA821-R-02-013/1000.0**			**Prep. Method: N/A**	
Please See Attached							
Total Hardness			**Method: SM 2340B**			**Prep. Method: CALC**	
Hardness, Total	**115**	mg/L CaCO3	N/A	1.25	T	Analyzed: 05/18/2004 09:44/	
Alkalinity, Total			**Method: EPA 310.2**			**Prep. Method: N/A**	
Alkalinity, Total	**105**	mg/L CaCO3	N/A	30		Analyzed: 05/14/2004 00:17/ VSM	

All samples were received intact and properly preserved unless otherwise noted.
The results reported relate only to the samples tested.
This report shall not be reproduced except in full, without written approval of this laboratory.

ACCREDITED IN ACCORDANCE WITH nelac
Lab# E87286

A2LA ACCREDITED
Lab#: 100343

Submitted by:

Project Manager: Becky Bryant

Please contact Becky Bryant with any questions.

Value Service Quality ACIL Environmental

Specific tests covered by A2LA and NELAC accreditations meet the requirements of these accreditation standards.

Results reported on a Wet Weight Basis

Printed: 05/19/2004

	Result	Units	Client Limit	RL	Qualifier	Analyzed/Analyst	Extracted

Data Qualifiers

Qualifier	Description
A	E. coli Present.
A'	E. coli absent.
B	Analyte detected in associated Method Blank.
C	Sample Result confirmed.
D	Results reported from dilution.
E	Analyte concentration exceeds calibration range.
F	Unable to analyze due to sample matrix interference.
H	Sample was received or analyzed past the established holding time.
J	Estimated concentration.
K	Sample contained lighter hydrocarbon fractions.
L	Sample contained heavier hydrocarbon fractions.
M	Matrix Spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Presumptive evidence of analyte present.
O	Sample hydrocarbon pattern does not match calibration standard pattern.
P	Percent difference between primary and secondary column concentrations exceeds acceptance limit.
Q	Laboratory Control Sample outside acceptance limits.
R	Data unusable.
S	Surrogate outside acceptance limits on initial and reanalysis.
S'	Surrogates diluted below detection.
T	Sample received improperly preserved.
U	Analyte not detected.
W	Raised Quantitation or Reporting Limit due to limited sample volume.
Y	Replicate/Duplicate precision outside acceptance limits.
Z'	Calibration criteria exceeded but for this situation acceptable by method.
Z	Calibration criteria exceeded.
M'	Result from Method of Standard Additions (MSA).
Q'	LCS/LCD analyzed due to insufficient sample for MS/MSD.

The uncertainty of analytical results can be calculated using the following equation:

$$n = t^*s/1.414$$

where

t=12.706 (Students t value for 95% confidence interval of two replicates)
s= standard deviation of sample and duplicate data
1.414 is square root of the number of replicates (two)

FATHEAD MINNOW
LARVAL SURVIVAL AND GROWTH TEST
EPA 821-R-02-013, METHOD 1000.0

EnviroData Group
2520 Regency Road
Lexington, Kentucky 40503-2921

Discharger: Monticello
Sample Description:
Bio. Log No: 311815, 312496, 313194
Date/Time Test Initiated: 5/4/04 - 1400 - JB
Dilution Water Batch Number on Day: 1: 495 2: 495 3: 496 4: 498 5: 499 6: 499 7: 499
Time of Day Renewed on Day: 1: 1300 2: 1400 3: 1100 4: 1500 5: 1400 6: 1500

Date/Time Test Terminated: 5/11/04 - 1500
Organism Batch Number: B-478
Initial Organism Age: < 24 hours 48 JB 4H 5/4/04
Dilution Water Used: Mod. Hard

Test Conc.	Test Cont. No.	No. of Live Larvae (Days) Sample Dates 5/3	5/3	5/5	5/5	5/7	5/7	5/7	Tin No.	Wt. of Tin & Larvae (mg)	Wt. of Tin (mg) TL 5-11-04	Total Wt. of Larvae (mg)	Mean Wt. of Larvae (mg)	Mean Wt. for Treatment (mg)
		1	2	3	4	5	6	7						
Control	1	10	10	10	10	10	10	10	1	951.98	956.55	4.57	0.457	
	2	10	10	10	10	10	10	10	2	952.06	957.05	4.99	0.499	
	3	10	10	10	10	10	10	10	3	953.46	957.89	4.43	0.443	
	4	10	10	10	10	10	10	9	4	957.90	962.52	4.62	0.462	0.465
18	5	10	10	10	10	10	10	10	5	959.18	964.36	5.18	0.518	
	6	10	10	10	10	10	10	10	6	953.38	958.44	5.06	0.506	
	7	10	10	10	10	10	10	10	7	949.05	953.93	4.88	0.488	
	8	10	10	10	10	10	10	10	8	952.69	958.10	5.41	0.541	0.513
36	9	10	10	10	10	10	10	10	9	954.44	960.18	5.74	0.574	
	10	10	10	10	10	10	10	10	10	957.88	963.55	5.67	0.567	
	11	10	10	10	10	10	10	10	11	953.33	958.04	4.71	0.471	
	12	10	10	10	10	10	10	10	12	953.43	959.44	6.01	0.601	0.553
71	13	10	10	10	10	10	10	10	13	956.47	961.88	5.41	0.541	
	14	10	10	10	10	10	10	10	14	953.75	959.13	5.38	0.538	
	15	10	10	10	10	10	10	10	15	954.00	959.35	5.35	0.535	
	16	10	10	10	10	10	10	10	16	955.57	961.15	5.58	0.558	0.543
35	17	10	10	10	10	10	10	10	17	952.00	957.26	5.26	0.526	
	18	10	10	10	10	10	10	10	18	953.30	957.81	4.51	0.451	
	19	10	10	10	10	10	10	10	19	952.50	957.88	5.38	0.538	
	20	10	10	10	10	10	10	10	20	952.85	957.57	4.72	0.472	0.497
100	21	10	10	10	10	10	10	10	21	951.54	956.34	4.80	0.480	
	22	10	10	10	10	10	10	10	22	953.05	958.48	5.43	0.543	
	23	10	10	10	10	10	10	10	23	949.66	954.81	5.185	0.5185	JB 5/17/04 0.519
	24	10	10	10	10	10	10	10	24	950.17	955.42	5.25	0.525	0.519 0.5
Analyst		TL	TL	TL	PM	JH	JB	TL		TL	TL	TL	TL	TL

Notes: Balance Used: Balance A

Approved By JAB

Unless noted, specific test conditions are in EPA 821-R-02-013 Table 1

EnviroData Group
2520 Regency Road
Lexington, Kentucky 40503
(859) 276-3506

Biomonitoring Checklist

Client name Monticello CFD

Sample Numbers 311815, 312496, 313194

Question	Yes	No	NA
Were the correct species used in the test?	✓		
Were the correct test types set up?	✓		
Did controls pass? (90% survival for acutes and 80% survival in chronics)	✓		
Did the *Ceriodaphnia dubia* controls have a minimum of 150 young?			✓
Did the *Pimephales promelas* controls weigh a minimum of 0.250 mg	✓		
Were stats required? Performed?		✓	
Was any chlorine present in sample/samples?		✓	
Were all applicable hold times met?	✓		
Was the sample temperature < 4°C upon arrival to the lab? If not, what were the temperatures?	✓		
Were all chemistries sent to the chemistry lab?	✓		
Were any data/chemistries missed?		✓	
Was the temperature of the lab acceptable during testing?	✓		
Were organisms the correct age?	✓		
Has addition been doubled checked on the data sheets?	✓		
Comments:			

SHORT-TERM CHRONIC TOXICITY TEST
TEMPERATURE RECORD

EnviroData Group
2520 Regency Road
Lexington, Kentucky 40503-2921
(859) 276-3506

Discharger: Monticello
Location: _____
Sample Number(s): 311815, 312496, 313194

Test Initiation Date / Time: 5/11/04 - 1500 JT
Test Protocol Temperature: 25 + 1°C
Test Organism: *C. dubia*, *P. promelas*
(circle as appropriate) *M. beryllina*, *M. bahia*
Other: _____

Sample Identification	Temperature (°C)													
	Day 1		Day 2		Day 3		Day 4		Day 5		Day 6		Day 7	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Control	24.7	25.2	25.1	25.3	25.3	25.0	25.3	24.3	24.2	24.0	24.3	24.4	24.5	25.1
18	24.6	25.2	25.1	25.3	25.1	25.0	25.3	24.3	24.2	24.0	24.3	24.4	24.7	25.1
36	24.7	25.2	25.1	25.3	24.9	24.9	25.3	24.3	24.3	24.1	24.3	24.5	24.8	25.0
71	24.8	25.3	25.2	25.3	24.7	24.9	25.2	24.4	24.3	24.1	24.3	24.3	25.1	25.0
85	24.9	25.3	25.3	25.4	24.6	24.9	25.2	24.5	24.3	24.1	24.3	24.3	25.5	25.0
100	25.0	25.3	25.3	25.2	24.5	25.0	25.2	24.6	24.3	24.1	24.3	24.2	25.8	25.0
Analyst	JB	TL	TL	TL	TL	TL	TL	PM	PM	SH	SH	JB	JB	TL

Comments:

TEMP RANGE 24.0 - 25.8°C

Acceptable Range 25.0°C +/- 1.0°C

Thermometer Used: Set #1 ____ Set #3 ✓
Set # 1 correction factor is 0.1 °C at 25°C
Set # 3 correction factor is 0.0°C at 25°C

CHEMICAL AND PHYSICAL ANALYSIS DATA SHEET / FRESH WATER

EnviroData Group
2520 Regency Road
Lexington, Kentucky 40503
(859) 276-3506

DISCHARGER/LOCATION: Monticello
SAMPLE NUMBER(S): 311815 TEST INITIATION DATE/TIME: _____
TEST ORGANISM (Check one): _____ *Ceriodaphnia dubia* (Method 1002.0)[1] ✓ *Pimephales promelas* (Method 1000.0)[1]
SAMPLE DATE: Day 1 5/3 Day 2 5/3 Day 3 5/5 Day 4 5/5 Day 5 5/7 Day 6 5/7 Day 7 5/7

EFFLUENT CONC. (%)	pH (Standard Units) METER A — TEST DAY													
	1		2		3		4		5		6		7	
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST
Control	7.5	6.7	7.7	6.5	7.6	6.5	7.7	6.5	7.6	6.6	7.7	7.0	7.4	6.4
12	7.6	6.8	7.5	6.6	7.4	6.6	7.4	6.6	7.4	6.6	7.3	7.0	7.5	6.5
36	7.5	6.8	7.4	6.6	7.4	6.6	7.4	6.6	7.4	6.7	7.3	7.0	7.6	6.6
71	7.4	6.9	7.3	6.7	7.3	6.7	7.3	6.6	7.3	6.8	7.3	7.4	7.6	6.6
25	7.4	7.0	7.3	6.8	7.3	6.8	7.2	6.7	7.3	6.8	7.3	7.4	7.6	6.8
100	7.3	7.1	7.2	6.9	7.2	6.8	7.1	6.7	7.2	6.8	7.2	7.4	7.5	6.9
Analyst	JB	TL	TL	TL	TL	TL	TL	PM	PM	SH	SH	JB	JB	TL

EFFLUENT CONC. (%)	DISSOLVED OXYGEN (mg/L) METER A — TEST DAY													
	1		2		3		4		5		6		7	
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST
Control	7.8	6.0	7.9	6.8	8.0	6.5	7.8	6.3	7.9	6.2	8.0	6.2	7.8	6.0
12	8.0	6.0	8.0	6.1	8.1	6.0	8.3	6.0	8.2	6.2	8.3	6.1	8.0	6.1
36	8.1	5.7	8.2	5.7	8.3	5.1	8.3	5.5	8.2	6.0	8.3	6.1	8.0	6.2
71	8.2	6.0	8.1	5.6	8.2	5.1	8.3	5.3	8.3	5.6	8.2	6.2	8.1	6.4
25	8.3	5.8	8.2	5.4	8.4	5.0	8.3	5.0	8.3	6.0	8.3	6.0	8.2	6.2
100	8.3	5.4	8.3	4.9	8.4	4.8	8.3	4.7	8.3	5.8	8.1	6.1	8.3	6.7
Analyst	JB	TL	TL	TL	TL	TL	TL	PM	PM	SH	SH	JB	JB	TL

EFFLUENT (%)	SPECIFIC CONDUCTANCE (µmhos/cm) METER A — TEST DAY						
	1	2	3	4	5	6	7
Control	325	317	321	309	317	321	307
12	371	366	357	346	351	369	378
36	415	409	398	391	395	420	JB 500 SH 424
71	497	493	477	458	472	517	528
25	532	532	512	493	510	557	553
100	570	565	542	526	541	594	594
Analyst	JB	TL	TL	TL	PM	SH	JB

Comments:
Total Residual Chlorine: Sample #1: <0.02 mg/L
Sample #2: <0.02 mg/L
Sample #3: <0.02 mg/L

Control Water Chemistries

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	
Alkalinity:	70	SH 68 70	68	68	68	68	68	mg/L
Hardness:	81	JH 80 81	80	80	80	80	80	mg/L

Alkalinity Accept. Range 60 – 70 mg/L
Hardness Accept. Range 80 – 100 mg/L

100% mortality demonstrated 1 hr after test initiation? Yes ___ No ✓
Dissolved oxygen monitored 2 hrs after test initiation. Highest concentration was 8.3 mg/L.

[1] Toxicity Test Method Manual: EPA 821-R-02-013; Method numbers for chemical parameters are listed on appropriate chemical bench sheets.

Sample treatment with Sodium Thiosulfate? ___ Yes ✓ No

Approved by: SH

BIOMONITORING
CHAIN OF CUSTODY RECORD

Bio Log No.: 312496 COC 29515

Client: Monticello W.W.T.P.

Outfall/Station:

Collected by: Don Lester

Facility Sampled: MWWTP

NPDES Permit #: 0033847

EnviroData Group, LLC
2520 Regency Road
Lexington, Kentucky 40503-2921
(606) 276-3506

SAMPLE TYPE:

EDG use only: Bio. Notification Time:_____ By:_____

Grab	Collection		Temp (°C) upon Pick up / shipping *Date:*				Temp (°C) upon receipt at EDG *Date:*			Volume Collected	Visual Description
	Date	Time	On site	Rec. by	Client Init.	Time	Laboratory	Rec. by	Time		
1											
2											
3											
4											

Composite	From		To		Temp (°C) upon Pick up / shipping *Date:*				Temp (°C) upon receipt at EDG *Date:*			Volume Collected	Visual Description
	Date	Time	Date	Time	On site	Rec. by	Client Init.	Time	Laboratory	Rec. by	Time		
1	5·4·04	8:00 AM	5-5-04	8:00 AM	6°	J.F.		10:20	3°		1352	2 gal	Clear, Colorless
2													

First Day Rain Event: Yes Amount (in.)_____ No Trace Daily Flow (MGD)_____
Second Day Rain Event: Yes Amount (in.)_____ No Trace Daily Flow (MGD)_____

COMMENTS:

SAMPLE DELIVERY: UPS ( ) Airborne Express ( ) Fed Ex ( ) Bus ( ) Client ( ) Consultant Field Charge ( ) $ 55.00

SAMPLE RECEIVING (Fill in from top down):

Relinquished by:	Received by:
David J Edwards 5-5-04 10:20AM	Jonathan Fole 5-5-04 10:20
Signature Date/Time	Signature Date/Time
Jonathan Fole 5-5-04 13:52	5-5-04 / 1352
Signature 5-5-04 / 1400 Date/Time	Signature 5-5-04 14:00 Date/Time
5-5-04 14:05	Julie A. Burns 5/5/04 1405
Signature Date/Time	Signature Date/Time

Virginia Clients - please complete reverse side

BIOMONITORING
CHAIN OF CUSTODY RECORD

Bio Log No.: 31394 CoC 29597

Client: Monticello Utilities

Outfall/Station:

Collected by: Client

Facility Sampled: MWWTP

NPDES Permit #: KY0033847

EnviroData Group, LLC
2520 Regency Road
Lexington, Kentucky 40503-2921
(606) 276-3506

SAMPLE TYPE:

EDG use only: Bio. Notification Time:_____ By:_____

Grab	Collection		Temp (°C) upon Pick up / shipping *Date:*				Temp (°C) upon receipt at EDG *Date:*			Volume Collected	Visual Description
	Date	Time	On site	Rec. by	Client Init.	Time	Laboratory	Rec. by	Time		
1											
2											
3											
4											

Composite	From		To		Temp (°C) upon Pick up / shipping *Date:*				Temp (°C) upon receipt at EDG *Date:*			Volume Collected	Visual Description
	Date	Time	Date	Time	On site	Rec. by	Client Init.	Time	Laboratory	Rec. by	Time		
1.	5-6-04	8AM	5-7-04	8AM	8.5	J.F.		10:15	1°	JCF	1244	2 gal	Clear, Colorless
2	5-6-04	8AM	5-7-04	PAM									

First Day Rain Event: Yes Amount (in.)____ No Trace Daily Flow (MGD)____
Second Day Rain Event: Yes Amount (in.)____ No Trace Daily Flow (MGD)____

COMMENTS:

SAMPLE DELIVERY: UPS ( ) Airborne Express ( ) Fed Ex ( ) Bus ( ) Client ( ) Consultant Field Charge ( ) $ 55.00

SAMPLE RECEIVING (Fill in from top down):

Relinquished by:		Received by:	
David L Edwards	5-7-04 10:15AM	Jonathan Tate	5-7-04 10:15
Signature	Date/Time	Signature	Date/Time
Jonathan Tate	5-7-04 12:44	Jaz	5/7/04 1244
Signature	Date/Time	Signature	Date/Time
Jaz	5/7/04 1330	Kristin Wallin	5/7/04 1330
Signature	Date/Time	Signature	Date/Time

Virginia Clients - please complete reverse side

BIOMONITORING
CHAIN OF CUSTODY RECORD

Bio Log No.: 311815 CoC 29434
Client: Monticello W.W.T.P.
Outfall/Station:

Collected by: Client
Facility Sampled:
NPDES Permit #:

EnviroData Group, LLC
2520 Regency Road
Lexington, Kentucky 40503-2921
(606) 276-3506

SAMPLE TYPE:

EDG use only: Bio. Notification Time: 1340 By: JES

Grab	Collection		Temp (°C) upon Pick up / shipping *Date:*				Temp (°C) upon receipt at EDG *Date:*			Volume Collected	Visual Description
	Date	Time	On site	Rec. by	Client Init.	Time	Laboratory	Rec. by	Time		
1											
2											
3											
4											

Composite	From		To		Temp (°C) upon Pick up / shipping *Date:*				Temp (°C) upon receipt at EDG *Date:*			Volume Collected	Visual Description
	Date	Time	Date	Time	On site	Rec. by	Client Init.	Time	Laboratory	Rec. by	Time		
1	5-2	8:00	5-3	8:00	8.5°C	J.F.			1	JES	13:31	2 GALLONS	
2													

First Day Rain Event: Yes Amount (in.)____ No Trace Daily Flow (MGD)____
Second Day Rain Event: Yes Amount (in.)____ No Trace Daily Flow (MGD)____

COMMENTS:

SAMPLE DELIVERY: UPS ( ) Airborne Express ( ) Fed Ex ( ) Bus ( ) Client ( ) Consultant Field Charge ( ) $ 55.00

SAMPLE RECEIVING (Fill in from top down):

Relinquished by:		Received by:	
Don Lester	5-3-04 11:15	Jonathan Fah	5-3-04 11:15
Signature	Date/Time	Signature	Date/Time
Jonathan Fah	5-3-04 13:31	JES	5-3-04 13:31
Signature	Date/Time	Signature	Date/Time
JES	5-3-04 1340	Jarp Redford	5-3-04 1340
Signature	Date/Time	Signature	Date/Time

Virginia Clients - please complete reverse side